

Claims

1. A method for identifying a fault associated with an individual cylinder of a multicylinder combustion engine (1),  
5 comprising the steps of:  
accelerating the combustion engine (1) to a first engine speed (L1);  
interrupting the fuel supply to all cylinders except the individual cylinder, which receives a predetermined amount of fuel supply, when the first engine speed (L1) is reached; and  
10 counting the time it takes for the speed of the combustion engine (1) to decrease from either the first engine speed (L1) or a second engine speed (L2), which is lower than the first engine speed (L1), down to a third engine speed (L3).
2. A method according to claim 1, comprising the step of supplying a substantially  
15 equal first amount of fuel to all cylinders (2a-2d) during the step of accelerating the combustion engine (1).
3. A method according to claim 1 or 2, which after the third engine speed (L3) has been reached comprises the step of interrupting the fuel supply to the individual  
20 cylinder.
4. A method according to any one of claims 1-3, comprising the step of keeping the speed of the combustion engine (1) at a substantially constant low speed (L0), which is lower than the third engine speed (L3), before the method is repeated for testing the  
25 individual cylinder again or another of the cylinders (2a-2d) of the combustion engine (1).
5. A method according to any one of the preceding claims, comprising the step of  
30 comparing the counted time with a predetermined time representing a deceleration time for a well-functioning cylinder.

6. A method according to any one of the preceding claims, wherein the combustion engine (1) is a diesel engine in a vehicle.

7. A computer program for identifying a fault associated with an individual cylinder of a multicylinder combustion engine (1), comprising computer readable program code means for causing an engine control unit (3) to cause an acceleration of the combustion engine (1) to a first engine speed (L1);  
computer readable program code means for causing the engine control unit (3) to interrupt the fuel supply to all cylinders except the individual cylinder, which receives a predetermined amount of fuel supply, when the first engine speed (L1) is reached;  
and  
computer readable program code means for causing either the engine control unit (3) or another computer (10) connected to the engine control unit (3) to count the time it takes for the speed of the combustion engine (1) to decrease from either the first engine speed (L1) or a second engine speed (L2), which is lower than the first engine speed (L1), down to a third engine speed (L3).

8. A computer program according to claim 7, comprising computer readable program code means for causing the engine control unit (3) or another computer (10) connected to the engine control unit (3) to display a graphical user interface on a display (25).

9. A computer program according to claim 7 or 8, comprising computer readable program code means for causing the engine control unit (3) or another computer (10) connected to the engine control unit (3) to check whether all of at least one criterion for testing the individual cylinder is fulfilled.

10. A computer program according to anyone of claims 7-9, comprising computer readable program code means for causing the engine control unit (3) or another computer (10) connected to the engine control unit (3) to compare a stored predetermined time with the time it takes for the speed of the combustion engine (1) to

decrease from either the first engine speed (L1) or the second engine speed (L2) to the third engine speed (L3).

11. A computer program product (24) comprising a computer program according to  
5 claim 7 and a computer readable medium on which the computer program is stored.

12. A computer, such as an embedded electronic engine control unit (3) or a vehicle  
external computer (10) comprising a storing means (14, 20) and a computer program  
according to claim 7 stored in the storing means (14, 20).